are also due to Dr. J. L. Harrison, Singapore University, for valuable suggestions.

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THE COMMONWEALTH INSTITUTE OF BIOLOGICAL CONTROL, BANGALORE 6, May 25, 1963.

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4. THE NILGIRI TAHR [HEMITRAGUS HYLOCRIUS (OGILBY)] IN CAPTIVITY

579.

Thanks to the generosity of the management of the Kanan Devan Hills Produce Co. Ltd., Munnar, it was possible to obtain, from their sanctuary near Vagavurray Estate, a pair of Nilgiri Tahr *Hemitragus hylocrius* (Ogilby) for the Trichur Zoo. They were captured when hardly ten days old and transported to Trichur in a large dealwood case, well padded with straw. When the two kids arrived at the Zoo, on a hot December afternoon in 1959, they looked so small and helpless that their chances of survival seemed slender. But with proper care, they have not only survived but acclimatized themselves to the Zoo and even raised a family. Bamby is now the mother of two kids, Párvati born on 27-4-1962, and a male born on 9-2-1963. Cookei, the father, is now a 'saddle-back'.

From the time of capture, fresh cow's milk diluted with water was their sole sustenance for a long time. It was fed to them out of a feeding bottle at regular intervals night and day. The animals were kept in a sheltered verandah next to the library instead of in their paddock, for safety and closer attention.

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Their umbilical cords were still intact when the kids arrived at the Zoo. Bamby, which came from a different herd, was a shade taller than Cookei and had a dark-grey back, with paler flanks and white belly. Cookei's colour soon deepened and both looked almost alike, except for Cookei's horn-knobs being more prominent and his face slightly shorter. Their eyes were dark brown with the pupil darker and horizontal. The muzzle was calico-black and, under stress of exertion, a moustachial streak of black would issue out of each nostril. There was a whitish circle around the eye and a black, oblique streak in front of each foreleg. The hair inside the ears was parted in four grooves, as in the Barbary sheep. When measured on 14-1-1960, just when they were about a month old, Cookei stood 17 inches at the shoulder and Bamby 18 inches.

Besides milk, the young animals loved to nibble at pieces of earth, laterite, dry leaves, and paper, while they licked with obvious relish the plaster off walls, the hands of the attendants, the seats and arms of chairs, and dust settled on the old book-cases. Later, they began to browse on the tender grass of the lawn and developed a partiality for the leaves of *Bridelia retusa*. *Hibiscus* and *Ficus* leaves were also eaten. So was *Tridax procumbens*, a common weed in the compound, but not *Boerhavia*, another common plant. Their present food consists of soaked Bengal gram, grass, leaves of the jak-tree, and ripe bananas.

The kids were most active after their feed of milk and kept dashing up and down the verandah, sometimes together, sometimes in opposite directions. In this mad career, their sure-footedness alone saved them from crashing into one another. When they ran, all four legs were off the ground. I have seen Cookei leap over the height and length of Bamby at one bound. The wall of their present run is nearly 8 ft. high, but this had to be provided with a 3-foot toprailing to prevent them from jumping over.

After play and exertion, they generally dropped down to rest just where they happened to be at the moment. The usual posture was with the legs folded beneath the body, head raised and attentive. But when really relaxing, the legs were stretched sideways with the neck either drawn forwards or curved around to rest on the body. They liked to sleep during the hottest part of the day. When fast asleep, they did not seem to mind small noises. On rising fully rested, they would stretch their bodies, holding their front legs erect and hind legs depressed and then give themselves a vigorous shake. Bamby invariably urinated on the gunny bag supplied to her before lying down, and Cookei at times pawed the ground as a prelude to repose.

In their earliest infancy, both the animals were tame and confiding, but with the passage of time, they became timid and suspicious and would start at every unfamiliar sound. They got upset when doors were opened or shut, or someone trod on dry leaves and made a rustling sound. Bamby, when parted from her mate or otherwise disturbed, showed her restlessness by a sharp circular motion of the neck. This habit of twisting the neck is occasionally present in cattle, and such animals are looked upon with superstitious dread in parts of Kerala. Cookei was free of this habit. I once saw him curl up in fright at the call of a Paradise Flycatcher from a neighbouring tree. Bamby's hair literally stood on end at the sight of her first mosquito. Their hearing is acute and senses of smell and sight well developed. Both have a plaintive bleat like a goat's but, under excitement of chasing one another or of fight or fright, they emit a loud hiss.

Two or three days after their arrival at the Zoo, Cookei mounted Bamby in the copulatory posture, but with no servicing movements. Bamby, at times, also behaved in the same way. Towards the close of the first year, Cookei began to make passes at Bamby and also at passers-by. This became such a nuisance that the animals had to be transferred to their present run. Here he was seen to be constantly making advances to Bamby with back arched and head lowered, but stopping short on getting close and contenting himself by stroking her once or twice with his forelegs. Any attempt to mount was prevented by Bamby moving away. When visitors approached the cage, Cookei transferred his advances to them, putting out his head and making clicking noises with the tongue. Actual copulation was not observed by me and is presumed to have taken place at night. I am thus unable to give the exact gestation period. No special rutting season was noticed; the male made advances to the female in all the months of the year.

The animals seldom fought, although they butted at each other playfully. The moment Cookei became really aggressive, as at feeding time, Bamby would move out of his way. Earlier, they had allowed themselves to be led about by their ropes, but Cookei soon started butting at the attendants. Once roused, he would not leave off, even if belaboured with a stick. On one occasion, an attendant was badly gored by him and had to be sent to the hospital. On another occasion, a man who jumped over the wall to pick up something he

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had thrown into the run was attacked and severely wounded. The goats themselves once jumped over the partition wall into the adjoining deer-run. While the authorities were in dread of the diminutive creatures being crushed to death by the stampeding sambar and spotted deer, what actually happened was that the goats had put the inmates to rout and sent them galloping to the farthest end of the paddock, after which they wandered about in supreme nonchalance until roped and led back to their own cage.

They have not suffered from any serious illness during the three and odd years of their life at the Zoo. Periodical examination of the faeces has revealed them to be free of internal parasites. Also, no external parasites have been noticed so far. But they are subject to attacks of severe cold during the hot months.

'BELL-VIEW,' DEWAN'S ROAD, ERNAKULAM, KERALA, May 20, 1963.

N. G. PILLAI

5. RESCUE AND RINGING OF FLAMINGOS IN KENYA COLONY

In October 1962 a local daily newspaper published a report about flamingos dying by the thousand on Lake Magadi in Kenya Colony. Enquiries made by Mr. Humayun Abdulali have elicited the following information from Mr. Leslie Brown, President, East African Natural History Society, which we are glad to publish. There were colonies of both species of flamingos, Lesser Flamingo (Phoeniconaias minor) about 1,000,000 pairs and Greater Flamingo (Phoenicopterus ruber) about 10,000 pairs. Between 800,000 and 900,000 young hatched. Shortly after hatching many young birds were affected by the saturated solution of soda in which they were moving forming heavy balls of soda round their legs. There was a generous response to appeals for helpers and funds, and active rescue efforts were put in train at a very early stage. Teams of catchers caught the affected young and knocked off the soda anklets. It is estimated that about 30,000 lives were saved by this method. In addition, about 100,000 more young were saved by driving them into water in which the solution of soda was not so concentrated and where the anklets did not form. The final saving was the ability of the young to move to the southern end of the lake, and the early arrival of the rains in